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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,681	08/09/2001	Katsuya Masao	011019	2370

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EXAMINER

DINH, DUC Q

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/924,681	MASAO, KATSUYA	
	Examiner	Art Unit	
	DUC Q. DINH	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 02, 2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the instant case, Claim 1 recited the limitation "a position indicator for detecting movement of a position indicator by moving the position indicator in the air " Although the specification does mention "position indicator 1 having a pressure sensor 2... when the position indicator 1 is moved in the air, elastic film 6 pushes the air, makes the local flow of the momentum of the air, and takes out the reaction as voltage", there is no support for the limitation "a position indicator for detecting movement of a position indicator by moving the position

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indicator in the air ”. In addition, how the pressure sensor detect the reaction of air if the minute holes are cover by the user’s palm; and why the position indicator detects movement itself and what data is output and what component or circuit to process output data and what the processed data is used for

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph.

The term "a position indicator" in claim 1 is a relative term, which renders the claim indefinite. The term "a position indicator" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. In the instant case, it is not clear that a claimed position indicator detects movement of itself or detects other position indicator as in claim 1.

5. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 4 and 6 recites the limitation “a cover comprising minutes holes in front to prevent the pressure sensor from wind”. Although the specification does mention cover 3 with minute hole 4 to protect sensor 6 from wind in page 5, lines 22-24 and Fig. 3. The specification is not enabling as to how one of ordinary skill would actually using the pressure sensor to detect a reaction of air due to the

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movement of the position indicator in the case the holes in claim 4 is used to prevent the pressure sensor from air.

The examiner examines the application based on the best understood of the claim language.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “pressure sensor, (item 6; Fig. 3-9) comprises holes on the back to make air flow smoothly” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Baba (U.S. Patent No 6,417,837).

In reference to claims 1 and 11, Baba discloses a position indicator for detecting movement of a position indicator 4, (Fig. 1) by moving the position indicator in the air (the position sensor can be moved in the space without being supported by a flat pad or the like) comprising:

an air pressure sensor 3 (Fig. 1) to detect a reaction of air due to the movement of the position indicator (col. 3, lines 49 – col. 4, lines 2).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 2-3, 5, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba (U.S Patent No 6,417,837) in view of Miu et al. (U.S Patent No. 6,700,174), hereinafter Miu.

In reference to claim 2, Baba discloses an air pressure sensor 3 using for detecting air pressure but does not disclose the position indicator comprising an elastic film to push the air.

Miu discloses a pressure sensor having an elastic film, (a flexible membrane, which is moved by and external force such as pressure from air flow col. 1, lines 20-25, col. 2, lines 65-67), to push the air as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the air pressure sensor to have the flexible membrane, i.e.: elastic film, in the device of Baba as taught by Miu because it would provide a pressure sensor immune to shock, vibration and orientation to provide a relatively sensitive and stable sensor, suitable for low pressure sensor applications (such as mouse for computer input device; col. 1, lines 33-41 of Miu).

In reference to claim 3, Miu discloses the elastic film forms concavity to provide maximum momentum to air (Fig. 6).

In reference to claims 4 and 6, Miu discloses the top cover (300) and bottom cover (400) having holes to vent the upper and lower surface of the membrane 202

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the casing of the input device of Baba to have the holes as taught by Miu because it would provide vent to the upper and lower surface of the pressure sensor to the atmospheric pressure (col. 8, lines 38-42 and 50-56 of Miu)

In reference to claim 7, Miu discloses diaphragm (202) having a piezoelectric effect (col. 1, lines 20-25).

In reference to claim 5, Miu discloses a cover 300 (Fig. 7-8) having channels 304 or holes 302 to make the air flow smoothly (Fig. 7, col. 8, lines 36-39).

In reference to claim 8 Miu discloses the piezoelectric film is glue to another film, comprised a material with good elasticity and rigidity, which fills a roles of pushing air (col. 4, lines 52-57).

In reference to claim 9, Baba discloses the movement of the position indicator is calculated by measuring a change in an output of a photo sensor (28) which receives a reflected light toward the slit disk 34 (Fig. 2, col. 1, lines 40 – col. 2, lines 2).

In reference to claim 10, Miu discloses the elastic film is comprised of a silicon, a piezo resistive element (211-214) is set near the elastic film (membrane) and a deflection occurred by the elastic film pushing the air is measured by a change in resistance value of the piezo resistive element (Fig. 2, col. 7, lines 5-40).

Response to Arguments

11. Applicant should submit an argument under the heading “Remarks” pointing out disagreements with the examiner’s contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

Conclusion

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edouard Patrick can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH
Examiner
Art Unit 2674



PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER

DQD
December 9, 2005